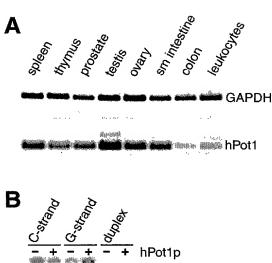


FIGURE 3



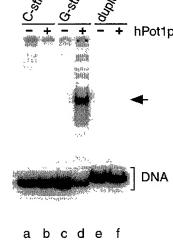


FIGURE 4

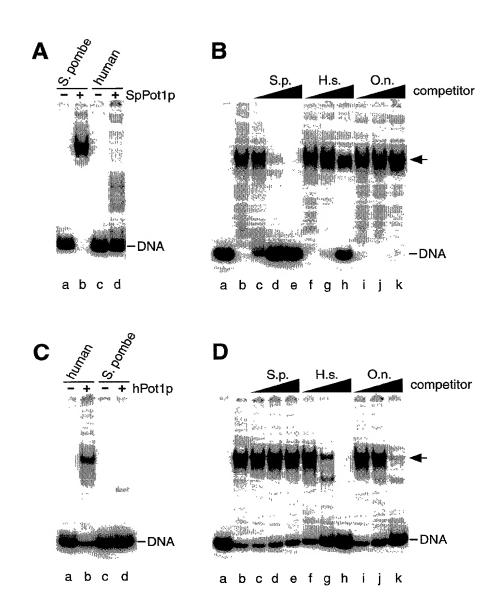
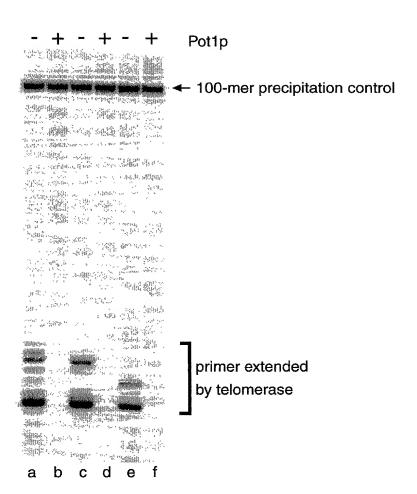


FIGURE 5



			+ - +	*******	13020
			tatgagtgaa		13020
tgatgcaaaa agccatgct					
cccctcctta ttctgagttt					13140
atagegetat atetgaagat					13200
aatctcggct tgttggtcgt	ggaaaatcta	ctgctcttac	teetgaagaa	accagagcaa	13260
tacaggagca ggcaaagaca	ctgaaaaagg	caggaatgga	ctttatgcta	ttetetttet	13320
ggttacctgc cctactttt	ctgagtatct	ttggtcttcg	aagctatgct	caaatgatcg	13380
ggggatattt atatcgctgc					13440
ttttctttct tttagtttta					13500
aggtattatg acaatgaaat					13560
tgaaagtaat tgcttattt					13620
tggcgctttt aaaaccaaaa	ı tagatcgttg	caggtttgct	gttctggatc	gtgaatgcaa	13680
taccttagga aagtetttta	ataagctatc	gctttttgca	ttgcattctt	tttctaaact	13740
gaacgttaga ttagctaaac	, taagcgtctt	gagttttcga	gatgaaccgc	atacattaaa	13800
atttttaagt accaattgg	atgaaccggt	atgcgatctg	cttattataa	tactagtaaa	13860
tettgatact eggeaaacte	: tttcaataat	agcctagcag	aaactgggat	atgtctaaag	13920
ttttacaact gcgctcagct	taaggacttt	acggcgatcc	atttaatagc	tagccatgaa	13980
cactcataac ctcaagatto					14040
attattggta aaataaaaci					14100
atgatcaagc ttgaacaagt	aactctcacq	cagtctattg	aataatctga	aggttcatca	14160
ctttcaaggg gttgtcttg	r tttaaaaagc	ttttaccaat	tccatttagg	tttctgagaa	14220
aggetaaaac teatttgtt	ttcttaaagg	atatttggat	cattcgttga	tcaagcatgg	14280
gagaggacgt tattgacag	cttcagttga	atgagttatt	aaatgctgga	gaatataaga	14340
ttggagtgag atatcaatg					14400
tttcagtcca ttagaagct	tcaagaatta	caaaagaaga	atactattqt	caatttqttt	14460
ggaatagtaa aagatttta					14520
gcttatcatg gtggaaact	tactttttat	ttttccagtc	aagagctaat	aatcatgttt	14580
ttagattggg taaccaccg	atatttataa	gatccaacat	gtgatacatc	aagcatcgga	14640
ctacagatac acttqttca					14700
caaccacttt tacttcate					14760
tctaaggatc aatttcgat	tacectttaa	ccacactttt	cttctaattc	caaagatact	14820
ctctqtcctc aaccaatqc					14880
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agtacetett etgetegte					15000
ctgctatcac aaataactc					15060
tggtacagtg ataaaaact					15120
tttccaatgt ctccgtata					15180
ataaggtgca ttttatggg					15240
gactatgtgg ttatgaaaa	tgagcacgac	aaaattaatc	accttcatta	tctaggagge	15300
atacttcatg gggattcag	r sasacottat	aatatrarta	tagaaaaagt	coattcooaa	15360
gaacccgaac taaacgaaa	taadacgccat	aaaaaaacttt	atattcagaa	ttaccaaaat	15420
ggtatagaag cagtaatcg	a caagecaege	caaaggceec	aatcagaaaa	tccttttatc	15480
gcccatgaat taaagcaaa	ttotattaat	gaaattaggg	cccatatcat	aaatdaacct	15540
gctagtttaa aattgacta	tettgetaat	atacttcatg	cacctttcca	gaatcttctc	15600
aaaccgagga aacataggc					15660
cagtttgctg tgctatctc	acgegeeeag	tcatatatt	ggatgttag	cttactcata	15720
agggatgtat cgaatgtga	accaccaccc	atattttt	attetaacac	tacagaactt	15780
attaacagct caaaaatcc	accttggat	ttacctcatc	accordanat	gactcttcag	15840
cttaaagaaa gattatttc					15900
togaagggtg aatogccaa	t gatteggggg	gaagatgttg	aacgcaccata	gtttgatata	15960
tatgtcaaag aatacattc	tataattaaa	aacaccaaac	accatcaatc	tttgactttt	16020
cttcagaagc gctggcgag	z stttaaccygg	aacaccaaag	gactattgtg	atacaaaact	16080
tacaataatg aaatgctta	g accognized	aaaaccyccc	accattgtg	acacaaaacc	16140
aagctctata ttgggagaa	- gyaaaagaaa - +++>+>>	gagggaattt	atactacca	aaaacacaga	16200
ggggaaacgt gaaatatct	n attacttage	ctttatataa	catcaacttc	gaaataatct	16260
tagaaattaa ttacaaaaa	a actycicaya	gatttaataa	ataataatta	catctaacca	16320
ggcttttgct tagaagttg	c aacaayyacc	ggtttgatgt	cactttcatc	atcaacaaca	16380
aatagagett gatgeteat					16440
ggacgeteat gatgeagat	r casactator	tttmamamam	addaadtdat	ctcaaactca	16500
tctacatctt gagcaactt	y caaactated	acassacasa	aggaagtcat	autagaecca	16560
cacaagtaca aaatggtaa	y cicacicali	gcyaaacyac	tatcactctc	tccataatta	16620
aggaaccaaa gaagtttcc	y carcaayard	taatantton	tttgaccgta	dataccaatc	16680
aagaaccaaa gaagtttcc					16740
caaagacgag tatacatct					16800
gtattattta aagccaata	y ayuuttaaca	gullycudc	yaaracyydy	taaaaaaaa	16860
ggagcggcaa acaaaatga	c casacactot	++a++ara+r	agagggagac	caaadatdac	16920
aagaaaaagc atgaagaaa	c caaayactct	ccarcagaly	tttracac++	acqaaqacqac	16980
aayaaaaayc acyaayadd	u yaaciycadd	Juguaayaa	Jugacaett	Logunguaga	_0500

FIGURE 8A

gattgaggagtgggtcattcttttgcttgataaagaaacaaattcattattggtaaaataaaactgaataacccttagttcatcctaggaatttgaagaagggg aatgatcaagcttgaacaagtaactctcacgcagtctattgaataatctgaaggttcatcactttcaaggggttgtcttggtttaaaaagcttttaccaattcca ttt aggttt ctg agaa aggctaa aact catttgttgt tct taa aggat atttgg at cattcgttg at caagc ATGGAGAGGACGTTATTGACAGTCTTCAGTTGAATGAGTTATTAAATGCTGGAGAATATAAGATTGGAGAACTTACATTT TAGTAAAAGATTTTACCCCTAGTCGCCAAAGTCTACATGGAACTAAGGATTGGGTAACCA CCGTATATTTGTGGGATCCAACATGTGATACATCAAGCATCGGACTACAGATACACTTGTT CAGCAAACAGGGAAATGATTTGCCTGTAATCAAGCAGGTGGGGCAACCGCTTTTGCTTCA TCAAATCACATTAAGAAGTTATAGAGACAGGACTCAAGGTTTGTCTAAGGATCAATTTCGA TATGCACTTTGGCCAGACTTTTCTTCTAATTCCAAAGATACTCTCTGTCCTCAACCAATGCC GGATGAGCAAACTAATAAACATAAAAATGGCGAATTATTGAGTACCTCTTCTGCTCGTCAA AATCAAACTGGATTGAGTTACCCTTCTGTCTCTTTTTCTCTGCTATCACAAATAACTCCACA TCAACGTTGTAGCTTTTACGCTCAGGTAATTAAAACTTGGTACAGTGATAAAAACTTTACT CTTTATGTCACTGATTATACGGAAAATGAGCTTTTTTTTCCAATGTCTCCGTATACTAGCTC CTCGAGATGGAGGGCCCTTTTGGTCGGTTTTCTATAAGGTGCATTTTATGGGATGAGCAC GACTTTTACTGCCGCAACTACATTAAAGAAGGTGACTATGTGGTTATGAAAAATGTGCGAA CCAAAATTGATCACCTTGGTTATCTGGAATGTATACTTCATGGGGATTCAGCAAAACGTTA TAATATGAGTATAGAAAAAGTCGATTCGGAAGAACCCGAACTAAACGAAATTAAGTCACG TAAAAGGCTTTATGTTCAGAATTGCCAAAATGGTATAGAAGCAGTAATCGAGAAACTCAG TCAAAGCCAACAATCGGAAAATCCTTTTATCGCCCATGAATTAAAGCAAACTTCTGTTAAT GAAATTACGGCCCATGTCATAAATGAACCTGCTAGTTTAAAATTGACTACTATTTCTACCA TACTTCATGCACCTTTGCAGAATCTTCTCAAACCGAGGAAACATAGGCTACGCGTTCAGGT GGTAGATTTTTGGCCAAAGAGTTTGACGCAGTTTGCTGTGCTATCTCAACCACCATCTTCG TATGTTTGGATGTTTGCCTTGCTCGTAAGGGATGTATCGAATGTGACTTTACCGGTCATATT TTTTGATTCTGACGCTGCGGAACTTATTAACAGCTCAAAAATCCAACCTTGCAATTTAGCT GATCACCGCAGATGACTCTTCAGCTTAAAGAAAGATTATTTCTGATTTGGGGGAACTTGG AAGAACGCATTCAGCATCACATATCGAAGGGTGAATCGCCAACTCTGGCTGCTGAAGATG TTGAAACACCATGGTTTGATATATATGTCAAAGAATACATTCCTGTAATTGGGAACACCAA AGACCATCAATCTTTGACTTTTCTTCAGAAGCGCTGGCGAGGATTTGGCACGAAAATTGTT tttataaagcgagcgaatttgtactaaggaaaaacacaga

FIGURE 8B

MGEDVIDSLQLNELLNAGEYKIGELTFQSIRSSQELQKKNTIVNLFGIV
KDFTPSRQSLHGTKDWVTTVYLWDPTCDTSSIGLQIHLFSKQGNDLPVI
KQVGQPLLLHQITLRSYRDRTQGLSKDQFRYALWPDFSSNSKDTLCPQP
MPRLMKTGDKEEQFALLLNKIWDEQTNKHKNGELLSTSSARQNQTGLSY
PSVSFSLLSQITPHQRCSFYAQVIKTWYSDKNFTLYVTDYTENELFFPM
SPYTSSSRWRGPFGRFSIRCILWDEHDFYCRNYIKEGDYVVMKNVRTKI
DHLGYLECILHGDSAKRYNMSIEKVDSEEPELNEIKSRKRLYVQNCQNG
IEAVIEKLSQSQQSENPFIAHELKQTSVNEITAHVINEPASLKLTTIST
ILHAPLQNLLKPRKHRLRVQVVDFWPKSLTQFAVLSQPPSSYVWMFALL
VRDVSNVTLPVIFFDSDAAELINSSKIQPCNLADHPQMTLQLKERLFLI
WGNLEERIQHHISKGESPTLAAEDVETPWFDIYVKEYIPVIGNTKDHQS
LTFLOKRWRGFGTKIV

FIGURE 8C

ATGGGAGAGGCGTTATTGACAGTCTTCAGTTGAATGAGTTATTAAATGCTGGAGAATATA AGATTGGAGAACTTACATTCAGTCCATTAGAAGCTCTCAAGAATTACAAAAGAAGAATA CTATTGTCAATTTGTTTGGAATAGTAAAAGATTTTACCCCTAGTCGCCAAAGTCTACATGG AACTAAGG g tatgett gettate at g t g gaaactataet titt at tittee ag te aagage ta at aat eat g titt tag ATTGGGTAACCAC and the second secCGTATATTTGTGGGATCCAACATGTGATACATCAAGCATCGGACTACAGATACACTTGTTC AGCAAACAGGGAAATGATTTGCCTGTAATCAAGCAGGTGGGGCAACCGCTTTTGCTTCAT CAAATCACATTAAGAAGTTATAGAGACAGGACTCAAGGTTTGTCTAAGGATCAATTTCGAT ATGCACTTTGGCCAGACTTTTCTTCTAATTCCAAAGATACTCTCTGTCCTCAACCAATGCCT GATGAGCAAACTAATAAACATAAAAATGGCGAATTATTGAGTACCTCTTCTGCTCGAAA ATCAAACTGGATTGAGTTACCCTTCTGTCTCTTTTTCTCTGCTATCACAAATAACTCCACAT CAACGTTGTAGCTTTTACGCTCAGGTAATTAAAACTTGGTACAGTGATAAAAACTTTACTC TTTATGTCACTGATTATACGGAAAATGAGCTTTTTTTTCCAATGTCTCCGTATACTAGCTCC TCGAGATGGAGGGCCCTTTTGGTCGGTTTTCTATAAGGTGCATTTTATGGGATGAGCACG ACTTTTACTGCCGCAACTACATTAAAGAAGGTGACTATGTGGTTATGAAAAATGTGCGAAC CAAAATTGATCACCTTGGTTATCTGGAATGTATACTTCATGGGGATTCAGCAAAACGTTAT AATATGAGTATAGAAAAAGTCGATTCGGAAGAACCCGAACTAAACGAAATTAAGTCACGT AAAAGGCTTTATGTTCAGAATTGCCAAAATGGTATAGAAGCAGTAATCGAGAAACTCAGT CAAAGCCAACAATCGGAAAATCCTTTTATCGCCCATGAATTAAAGCAAACTTCTGTTAATG AAATTACGGCCCATGTCATAAATGAACCTGCTAGTTTAAAATTGACTACTATTTCTACCAT ACTTCATGCACCTTTGCAGAATCTTCTCAAACCGAGGAAACATAGGCTACGCGTTCAGGTG GTAGATTTTTGGCCAAAGAGTTTGACGCAGTTTGCTGTGCTATCTCAACCACCATCTTCGT ATGTTTGGATGTTTGCCTTGCTCGTAAGGGATGTATCGAATGTGACTTTACCGGTCATATTT TTTGATTCTGACGCTGCGGAACTTATTAACAGCTCAAAAATCCAACCTTGCAATTTAGCTG ATCACCGCAGATGACTCTTCAGCTTAAAGAAAGATTATTTCTGATTTGGGGGAACTTGGA AGAACGCATTCAGCATCACATATCGAAGGGTGAATCGCCAACTCTGGCTGCTGAAGATGT TGAAACACCATGGTTTGATATATGTCAAAGAATACATTCCTGTAATTGGGAACACCAAA GACCATCAATCTTTGACTTTTCTTCAGAAGCGCTGGCGAGGATTTGGCACGAAAATTGTTT GA

FIGURE 8D

MGEDVIDSLQLNELLNAGEYKIGELTFQSIRSSQELQKKNTIVNLFGIV
KDFTPSRQSLHGTKGMLAYHGGNYTFYFSSQELIIMFLDWVTTVYLWDP
TCDTSSIGLQIHLFSKQGNDLPVIKQVGQPLLLHQITLRSYRDRTQGLS
KDQFRYALWPDFSSNSKDTLCPQPMPRLMKTGDKEEQFALLLNKIWDEQ
TNKHKNGELLSTSSARQNQTGLSYPSVSFSLLSQITPHQRCSFYAQVIK
TWYSDKNFTLYVTDYTENELFFPMSPYTSSSRWRGPFGRFSIRCILWDE
HDFYCRNYIKEGDYVVMKNVRTKIDHLGYLECILHGDSAKRYNMSIEKV
DSEEPELNEIKSRKRLYVQNCQNGIEAVIEKLSQSQQSENPFIAHELKQ
TSVNEITAHVINEPASLKLTTISTILHAPLQNLLKPRKHRLRVQVVDFW
PKSLTQFAVLSQPPSSYVWMFALLVRDVSNVTLPVIFFDSDAAELINSS
KIQPCNLADHPQMTLQLKERLFLIWGNLEERIQHHISKGESPTLAAEDV
ETPWFDIYVKEYIPVIGNTKDHQSLTFLQKRWRGFGTKIV

FIGURE 9A

ATGTCTTTGGTTCCAGCAACAAATTATATATATACACCCCTGAATCAACTTAAGGGTGGTA CAATTGTCAATGTCTATGGTGTTGTGAAGTTCTTTAAGCCCCCATATCTAAGCAAAGGAAC TTTAGTGGAAACTATGAAGCCCTTCCAATAATTTATAAAAAATGGAGATATTGTTCGCTTTC ACAGGCTGAAGATTCAAGTATATAAAAAGGAGACTCAGGGTATCACCAGCTCTGGCTTTG TTTTAACTTCACTACTGAGGACCACAAAATGGTAGAAGCCTTACGTGTTTTGGGCATCTACT CATATGTCACCGTCTTGGACATTACTAAAATTGTGTGATGTTCAGCCAATGCAGTATTTTG ACCTGACTTGTCAGCTCTTGGGCAAAGCAGAAGTGGACGAGCATCATTTCTTCTAAAGGT ATGGGATGGCACCAGGACACCATTTCCATCTTGGAGAGTCTTAATACAAGACCTTGTTCTT GAAGGTGATTTAAGTCACATCCATCGGCTACAAAATCTGACAATAGACATTTTAGTCTACG ATAACCATGTTCATGTGGCAAGATCTCTGAAGGTTGGAAGCTTTCTTAGAATCTATAGCCT TCATACCAAACTTCAATCAATGAATTCAGAGAATCAGACAATGTTAAGTTTAGAGTTTCAT CTTCATGGAGGTACCAGTTACGGTCGGGGAATCAGGGTCTTGCCAGAAAGTAACTCTGAT GTGGATCAACTGAAAAAGGATTTAGAATCTGCAAATTTGACAGCCAATCAGCATTCAGAT GTTATCTGTCAATCAGAACCTGACGACAGCTTTCCAAGCTCTGGATCAGTATCATTATACG AGGTAGAAAGATGTCAACAGCTATCTGCTACAATACTTACAGATCATCAGTATTTGGAGA GGACACCACTATGTGCCATTTTGAAACAAAAAGCTCCTCAACAATACCGCATCCGAGCAA AATTGAGGTCATATAAGCCCAGAAGACTATTTCAGTCTGTTAAACTTCATTGCCCTAAATG TCATTTGCTGCAAGAAGTTCCACATGAGGGCGATTTGGATATAATTTTTCAGGATGGTGCA ACTAAAACCCCAGTTGTCAAGTTACAAAATACATCATTATATGATTCAAAAAATCTGGACCA CTAAAAATCAAAAAGGACGAAAAGTAGCAGTTCATTTTGTGAAAAATAATGGTATTCTCC CGCTTTCAAATGAATGTCTACTTTTGATAGAAGGAGGTACACTCAGTGAAATTTGCAAACT CTCGAACAAGTTTAATAGTGTAATTCCTGTGAGATCTGGCCACGAAGACCTGGAACTTTTG GACCTTTCAGCACCATTTCTTATACAAGGAACAATACATCACTATGGATGTAAACAGTGTT CTAGTTTGAGATCCATACAAAATCTAAATTCCCTGGTTGATAAAACATCGTGGATTCCTTC CTTGATGATGGAACAGGAGTACTAGAAGCCTATCTCATGGATTCTGACAAATTCTTCCAGA TTCCAGCATCAGAAGTTCTGATGATGATGACCTTCAGAAAAGTGTGGATATGATCATGGA TATGTTTTGTCCTCCAGGAATAAAAATTGATGCATATCCGTGGTTGGAATGCTTCATCAAG TCATACAATGTCACAAATGGAACAGATAATCAAATTTGCTATCAGATTTTTGACACCACAG TTGCAGAAGATGTAATCTAA

FIGURE 9B

MSLVPATNYIYTPLNQLKGGTIVNVYGVVKFFKPPYLSKGTDYCSVVTI
VDQTNVKLTCLLFSGNYEALPIIYKNGDIVRFHRLKIQVYKKETQGITS
SGFASLTFEGTLGAPIIPRTSSKYFNFTTEDHKMVEALRVWASTHMSPS
WTLLKLCDVQPMQYFDLTCQLLGKAEVDGASFLLKVWDGTRTPFPSWRV
LIQDLVLEGDLSHIHRLQNLTIDILVYDNHVHVARSLKVGSFLRIYSLH
TKLQSMNSENQTMLSLEFHLHGGTSYGRGIRVLPESNSDVDQLKKDLES
ANLTANQHSDVICQSEPDDSFPSSGSVSLYEVERCQQLSATILTDHQYL
ERTPLCAILKQKAPQQYRIRAKLRSYKPRRLFQSVKLHCPKCHLLQEVP
HEGDLDIIFQDGATKTPVVKLQNTSLYDSKIWTTKNQKGRKVAVHFVKN
NGILPLSNECLLLIEGGTLSEICKLSNKFNSVIPVRSGHEDLELLDLSA
PFLIQGTIHHYGCKQCSSLRSIQNLNSLVDKTSWIPSSVAEALGIVPLQ
YVFVMTFTLDDGTGVLEAYLMDSDKFFQIPASEVLMDDDLQKSVDMIMD
MFCPPGIKIDAYPWLECFIKSYNVTNGTDNQICYQIFDTTVAEDVI

FIGURE 9C

ATGTCTTTGGTTCCAGCAACAATTATATATATATACACCCCTGAATCAACTTAAGGGTGGTA CAATTGTCAATGTCTATGGTGTTGTGAAGTTCTTTAAGCCCCCATATCTAAGCAAAGGAAC TTTAGTGGAAACTATGAAGCCCTTCCAATAATTTATAAAAAATGGAGATATTGTTCGCTTTC ACAGGCTGAAGATTCAAGTATATAAAAAGGAGACTCAGGGTATCACCAGCTCTGGCTTTG TTTTAACTTCACTACTGAGGACCACAAAATGGTAGAAGCCTTACGTGTTTTGGGCATCTACT CATATGTCACCGTCTTGGACATTACTAAAATTGTGTGATGTTCAGCCAATGCAGTATTTTG ACCTGACTTGTCAGCTCTTGGGCAAAGCAGAAGTGGACGGAGCATCATTTCTTCTAAAGGT ATGGGATGGCACCAGGACACCATTTCCATCTTGGAGAGTCTTAATACAAGACCTTGTTCTT GAAGGTGATTTAAGTCACATCCATCGGCTACAAAATCTGACAATAGACATTTTAGTCTACG ATAACCATGTTCATGTGGCAAGATCTCTGAAGGTTGGAAGCTTTCTTAGAATCTATAGCCT TCATACCAAACTTCAATCAATGAATTCAGAGAATCAGACAATGTTAAGTTTAGAGTTTCAT ${\tt CTTCATGGAGGTACCAGTTACGGTCGGGGAATCAGGGTCTTGCCAGAAAGTAACTCTGAT}$ GTGGATCAACTGAAAAAGGATTTAGAATCTGCAAATTTGACAGCCAATCAGCATTCAGAT GTTATCTGTCAATCAGAACCTGACGACAGCTTTCCAAATGGAGTCTCGCTTCGTCCTCCAG GCTGGAGTTCAGTGGCACGGTCTCGGCTCATTGCAGCCTCCACCTCCTGAGTTCAAGCTTC **TCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAG**GCTCTGGATCAGTATCATTATACGAG GTAGAAAGATGTCAACAGCTATCTGCTACAATACTTACAGATCATCAGTATTTGGAGAGG ACACCACTATGTGCCATTTTGAAACAAAAAGCTCCTCAACAATACCGCATCCGAGCAAAA TTGAGGTCATATAAGCCCAGAAGACTATTTCAGTCTGTTAAACTTCATTGCCCTAAATGTC ATTTGCTGCAAGAAGTTCCACA

FIGURE 9D

MSLVPATNYIYTPLNQLKGGTIVNVYGVVKFFKPPYLSKGTDYCSVVTI VDQTNVKLTCLLFSGNYEALPIIYKNGDIVRFHRLKIQVYKKETQGITS SGFASLTFEGTLGAPIIPRTSSKYFNFTTEDHKMVEALRVWASTHMSPS WTLLKLCDVQPMQYFDLTCQLLGKAEVDGASFLLKVWDGTRTPFPSWRV LIQDLVLEGDLSHIHRLQNLTIDILVYDNHVHVARSLKVGSFLRIYSLH TKLQSMNSENQTMLSLEFHLHGGTSYGRGIRVLPESNSDVDQLKKDLES ANLTANQHSDVICQSEPDDSFPNGVSLRPPGWSSVARSRLIAASTS

FIGURE 9E

ATGTCTTTGGTTCCAGCAACAACTTATATATATACACCCCTGAATCAACTTAAGGGTGGTA CAATTGTCAATGTCTATGGTGTTGTGAAGTTCTTTAAGCCCCCATATCTAAGCAAAGGAAC TTTAGTGGAAACTATGAAGCCCTTCCAATAATTTATAAAAATGGAGATATTGTTCGCTTTC ACAGGCTGAAGATTCAAGTATATAAAAAGGAGACTCAGGGTATCACCAGCTCTGGCTTTG TTTTAACTTCACTACTGAGGACCACAAAATGGTAGAAGCCTTACGTGTTTGGGCATCTACT CATATGTCACCGTCTTGGACATTACTAAAATTGTGTGATGTTCAGCCAATGCAGTATTTTG ACCTGACTTGTCAGCTCTTGGGCAAAGCAGAAGTGGACGGAGCATCATTTCTTCTAAAGGT ATGGGATGGCACCAGGACACCATTTCCATCTTGGAGAGTCTTAATACAAGACCTTGTTCTT GAAGGTGATTTAAGTCACATCCATCGGCTACAAAATCTGACAATAGACATTTTAGTCTACG ATAACCATGTTCATGTGGCAAGATCTCTGAAGGTTTGGAAGCTTTCTTAGAATCTATAGCCT TCATACCAAACTTCAATCAATGAATTCAGAGAATCAGACAATGTTAAGTTTAGAGTTTCAT $\tt CTTCATGGAGGTACCAGTTACGGTCGGGGAATCAGGGTCTTGCCAGAAAGTAACTCTGAT$ GTGGATCAACTGAAAAAGGATTTAGAATCTGCAAATTTGACAGCCAATCAGCATTCAGAT GTTATCTGTCAATCAGAACCTGACGACAGCTTTCCAAGCTCTGGATCAGTATCATTATACG AGGTAGAAAGATGTCAACAGCTATCTGCTACAATACTTACAGATCATCAGTATTTGGAGA GGACACCACTATGTGCCATTTTGAAACAAAAAGCTCCTCAACAATACCGCATCCGAGCAA AATTGAGGTCATATAAGCCCAGAAGACTATTTCAGTCTGTTAAACTTCATTGCCCTAAATG TCATTTGCTGCAAGAAGTTCCACATGAGGGCGATTTGGATATAATTTTTCAGGATGCTGCA ACTAAAACCCCAGATGTCAAGCTACAAAATACATCATTATATGATTCAAAAATCTGGACC ACTAAAAATCAAAAAGGACGAAAAGTAGCAGTTCATTTTGTGAAAAATAATGGTATTCTC CCGCTTTCAAATGAATGTCTACTTTTGATAGAAGGAGGTACACTCAGTGAAATTTGCAAAC TCTCGAACAAGTTTAATAGTGTAATTCCTGTGAGATCTGGCCACGAAGACCTGGAACTTTT GGACCTTTCAGCACCATTTCTTATACAAGGAACAATACATCACTATGGCACTGGGTATTGT ACCCCTCCAATATGTGTTTGTTATGACCTTTACACTTGATGATGGAACAGGAGTACTAGAA ATGACCTTCAGAAAAGTGTGGATATGATCATGGATATGTTTTGTCCTCCAGGAATAAAAAT TGATGCATATCCGTGGTTGGAATGCTTCATCAAGTCATACAATGTCACAAATGGAACAGAT AATCAAATTTGCTATCAGATTTTTGACACCACAGTTGCAGAAGATGTAATCTAA

FIGURE 9F

MSLVPATNYIYTPLNQLKGGTIVNVYGVVKFFKPPYLSKGTDYCSVVTI
VDQTNVKLTCLLFSGNYEALPIIYKNGDIVRFHRLKIQVYKKETQGITS
SGFASLTFEGTLGAPIIPRTSSKYFNFTTEDHKMVEALRVWASTHMSPS
WTLLKLCDVQPMQYFDLTCQLLGKAEVDGASFLLKVWDGTRTPFPSWRV
LIQDLVLEGDLSHIHRLQNLTIDILVYDNHVHVARSLKVGSFLRIYSLH
TKLQSMNSENQTMLSLEFHLHGGTSYGRGIRVLPESNSDVDQLKKDLES
ANLTANQHSDVICQSEPDDSFPSSGSVSLYEVERCQQLSATILTDHQYL
ERTPLCAILKQKAPQQYRIRAKLRSYKPRRLFQSVKLHCPKCHLLQEVP
HEGDLDIIFQDGATKTPDVKLQNTSLYDSKIWTTKNQKGRKVAVHFVKN
NGILPLSNECLLLIEGGTLSEICKLSNKFNSVIPVRSGHEDLELLDLSA
PFLIOGTIHHYGTGYCTPPICVCYDLYT

FIGURE 10A

gate tittitte tgggeta atteatat gaetea aatteat tatag titgeata aataat gattitte tittite attitte attite aatag at git gag at egit tatag at git gag at egit gag at egit tatag at git gag at gag at gag at git gag at gag at git gag at gag attgctcttacaaataatactttaataaacatccttgaatatatgtacttccatgtttttacttctccacaataaactaaaagtgaggtcgatgtatctaaggttatg cac at ttttta at agat get ge cag at tattta cca a ag ge cat aga a at tate cca a at age ag t g ag agat at a cetta cca cac ette a cag tatt at the companion of taacgtttttaatteeetetteeteagattttetgetettaetetttatetgattttetgttgaattatatttttgteagtttgtgggeaaceatgtatgttttaeacattttet tatttgactacttttatggtttetgecattatttecatcteatgttgtaatggecaatattaattaattaattagatttattgaaattataccatgccagettgagatgt atgtataatagaatgtaagctaaagtgattacaaaatacacatttttaaagtcttaagttettetttttagaaagcattttgtaaccttagtgctatgactactactt tttagtagagacacagtttcaccatgttggccaggctggtctcgaactcctgaccttagataatctgcccgcctcggcctcctaaagtgctgggattacag ttttgactaatacataaacettgtaacccaaatccctctagatttgctgttctagaactttgaaaaaattgaatcatatgtactcttttttgtatatactatatgtttttgagagttaatcacattgttgcatatatcattagtttgtttcctttttaatgcctagtcacatgatatgcggtagacattttttctttagataggaatttctagttgttatg a cat cattig titteet titteet attag atggette aatgtettigte aaaaate aagegag tataaatgt gggettat gettee atteet at gettee at the aatget aattatagtgtgaagtatgcattttcctcacactaaattttcagttattgcagcaccatttgcattctccttgcattgctttgctgctttagtaaaaaatcaaaatacaattacattgtaa at gt gg gt tt at tt c a g g c t c t at tt a at tt a at tt a g t t g at c t at tt tt c a at c c t g at g c c a g t a c c g t g t t g t c t a a at t a c t g t a a g t a a g t t a a g t a a g t t a a g t a a g t t a a g t a a g t t a a g t a a g t t a a g t a a g t t a a g t a agtcttgaagtcatgtacatggttctccaactttgttattttttaaaatgttattttaatattctagattttctgcacttccacataagtgatagcatctgctttgcaatctgaatcttgaagtcatgtacatggttctccacattagttatttttaaaatgttattttaaaatgttatttaaaatgttattctgcacttccacattaggttctccacattaggtctaca at a a age ct ct get att tt gtt t gtt t gtt t gtt t gtt gt tt gtt gag ca ag ag te cat t ct gtt ge ce ag get gg ag t ge a at gg ca a at ct ca get cat te get a at cat cat get a consideration of the consideration ogcctccacctcctgggttcaagtgattctcatgcctcagcctgctgagtagctgggattacaggcatctgcaccacacttggctaatttttgtatttgtagta gagatggggtttcaccattttggccaggctggtctctaactcctgatctcaagtgatctgcccacctcagtcctccgaagtgttgggattataggcgtgag ceact g tgcccaccccag cetet g ctattttcgaag gattat g ctgaatttacag attaatttggag agaattgatatettaacaatattgag cettetaaatcaattaag gattaatttgag gattaatttgag gattaatttaacaatattgag gattaatttaag gattaatttgag gattaatttaag gattaatttaag gattaatttgag gattaatttaag gattaatttgag gattaatttaag gattaatttgag gattaatttaag gattaag gattaag gattaag gattaag gattaatttaag gattaag gattaagttcctttttatagGCTCTGGATCAGTATCATTATACGAGGTAGAAAGATGTCAACAGCTATCTGCTACatateetttaaagetaaaatatgteeatatttaaetttettettetaeegtgtettgttggeataaaatggaaeeeataaagataaegtgtetttaeattgeatatttt aagteatetatetetaacagaettaatgtttaaaacagatatgttttaaacattaaatacatgatgtatttgaagteatgtatetetgttagagttacatgaettaa aatgtgcaatgtaaagacacatatetttaaactattacatgaagagttateetgteacatgatgcatttaacagtgtaccataaaggageteettgeaatatge cactecagttgecataageacacetggtgeteagatettggtttataaataatatttetetetaaaggaateagageteettggtgaaacageagatttetga actagaacaagggaattacaagattagtatggagtaaccttgtactagaaagtaagggggttctcagttaatgatgaaactcgtcaaatggcttaggata gaacatgtotaggaacatttgagcatcaaaacaaataatactaattgagtaaagcaggaatgcatgagcccatgttgatgatgataaaggaaaaataaaa tcattgttgagttagttgtgaatctgtggattctaaactatcaggatatttgatgaaaaataagatatttacattttctctagtatattcttgttaaatacaaggggg gtgatgcactgagaagcatacagtatcacttacgcattattcctgccaaaaatgcataagctaaatctgagcctgaggaataaccagacaacacccaaat tggtgtttattctacagaataaatggctgtactcttcaaatatatcagtgttgtgaaagataaagaaaagccgaggacttattttacattaaagaagtctaaag ctggaggatttagaggaaaggaggcataatgtctggtagttattctcaaatgattcaataatatttatgtggtgagagacagataaagacaggcacagtga caatgataaatgtgcaaaaatgttaacaattggtgaatcttggtgaatattatacagaaggtctttgtattgttttgcaattttccttaagtttgaaagcattttaa a atgaaa agttaaa aacttt aggttaaa at atgagttt gaag caatt getet ta teact g t ag caat g ta cactaa at t gat cag g t ct g ceaat g g cett t t a cact g t g t ag caat g t ac a ct a a ct g a cacta g t ct g ceaat g g cett t t a cact g t g t a cacta g t ct g cacta g t a cacta g t ct g cacta g t cacta g t ct g cacta g t cacta g t ct g cacta g t cacta g ttttttttttttttttttttttttgagggggggtetegetgtegeeaggetggagtgeagtggcaetatettggeteaetgeaagetetgeetteegggtteaegeeatt ctectgeeteageeteeegagtagetgggaetaeaggtgeeegeeaceaeaeggetaatttittgtatttttagtagagaeggggttteaeegtgttage caggatggtetegetetettgaeetegtgatetaeeegeeteggeeteeeaaagtgetgggattaeaggegtgageeaeegegeeeggtgeeaatgge

FIGURE 10B

ctttttaaaagcatcaccagctgggtgcagtggctcacgcccgtaatcccagcactttgggaggccgaggcggggcagatcacctgaggacgggagttacccagcactttgggaggccgaggcggggcagatcacctgaggacgggaggttacccagcactttgggaggccgaggccgaggccgaggacgatcacctgaggacgggaggttacccagcactttgggaggccgaggccgaggccgagatcacctgaggacgggaggttacccagcactttgggaggccgaggccgaggccgaggacgatcacctgaggacggaggacgagatcacctgaggacggagatcacctgaggacggagatcacctgaggacgagatcacctgaggacgagatcacctgaggacgagatcacctgaggacgagatcacctgaggacgagatcacctgaggacgagatcacctgagagatcacctgagagatcacctgagagatcacctgagagatcacctgagaatcacctgagaatcacctgagaatcacctgagaatcacctgagaatcacctgagaatcacctgagaatcacctgagaatcaccagaatcaccagaatcaccagaatcaccagaatcacctgagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaatcaccagaattaccaagaatcacccgaagccagcctgaccaacatggagaaaccccgtttctactagaagtacaaaaattagctgggcgtggtggtgcatgcctgtaatcccagctacttagg acteegteteegaaaaaaaaaaaaaaaaaaccacaategeeaccacaacaaaatgtteeactgtaataaatgtteeactetgatgtaataaatgtteeactet gataaaggcaagtgagaaataataaatgatgaatatatttgggcagactcatttgtcacagaagtatcttaaatataaactttattaactgaaatatttgaaaa gaggtgta attacttga aatateta attaagtgata cagagage cttgttggta aacttetgteettettggee atttgeteettgaaggaaa actaatte aacanteet aattaagtgata cagagagaa aactaatte aacanteet geen attaget cattgaaggaa aactaatte aacanteet geen attaget cattgaaggaaa actaatte aacanteet geen actaatta agtgata aactaatte aactaatte geen attaget geen actaatte geen actaatteagaatttcattggattaaagctcagtactgaaaggaattgtcttcgccattgaggttaataagatttgtacatcatttcccttttctaaaacacatgaaagtgttaagctagaatgtatagcaagctgttgccttaagctaagggtcaccagcaattttatactttttcccagtaaaaactgatcactacaatcccaggccatctttcc cctectectecaetectectectecaacteceaaacttectetteteeaetactaeaecaeteetgtgaeagttagateaecettaatgteeetteetattettaa totgattttataatgatggttotgtaaaaagtaactgatttgaaacatccaagagcctgcaaataatatttgcaaataatattttacaagtgtgttttgttacattctttettececeaaattateeagegtttatttagtaeaeatttgttgagtaeetaetgtgeetggeaetatgetagtgggeettgggtataeateagggaataaag a cata accett cettic at ggag t gacact ta at a gg get ta a at ta at ta gat that a tat gg the agg gg gg at get a tat a tat gg the agg gg gg at get a tat a tat gg the agg gg at get a tat a tat gg the agg gg at get a tat a tat gg the agg gg at get a tat a tat gg the agg gg at get a tat a tat gg the agg gg at get a tat a tat gg the agg gg at get a tat a tat gg the agg gg at gg at get a tat a tat gg the agg at gg aattctgattgaatataaaaattctttacagTACTTACAGATCATCAGTATTTGGAGAGGACACCACTATGTGCCATTTTGAAACAAAAGCTCCTCAACAATACCGCATCCGAGCAAAATTGAGGTCATATAAGCC CAGAAGACTATTTCAGTCTGTTAAACTTCATTGCCCTAAATGTCATTTGCTgtgagtattttccataataa gta attacttga aa tatctaatta ag t ga taa ag ag ag cett gt t gg taa acttet gt cet get taataa ctag aa tataa taa attaa attta aa ttt cett t ag taa act t cett get taataa ctag aa tataa taa attaa attaa attta aa ttt cett t ag taa act t cett get taataa ctag aa tataa attaa attaa attaa att t cett t ag taa act t cett get taataa ctag aa tataa attaa attgeatttggatgeectaaattgagtetteaetaaaatgtgetaeaatgtgtaaatatetatgtaeategeeatgtatttgtgtgettataaattgtgagtatetgtgtaaatatetatgtaeategeeatgtatttgtgtgettataaattgtgagtatetgtgtgtaaatatetatgtaeategeeatgtatttgtgtgettataaattgtgagtatetgtgtgagtatetgtgtcatta a tata a tatacagaagaaagccatacaccttttgattccaaatgatgccatttctgctacatggtacctaaccatatgacttcttaaaattattaaatattaaacagaattggaa act gact cate ta cat g ta a a t gat a cate ta cate ttttagGCAAGAAGTTCCACATGAGGGCGATTTGGATATAATTTTTCAGGATGGTGCAACTAAAACCCCAGaTGTCAAGcTACAAAATACATCATTATATGATTCAAAAATCTGGACCACTAAAAA TCAAAAAGGACGAAAAGTAGCAGTTCATTTTGTGAAAAAATAATGGTATTCTCCCGCTTTCA t t cata a att ta catt ta atta catt t ga a att ga a att ga a cat ta a cat ta ta t g t g a t g a t ta a cat ta at g t g a t ggtta agta ataa taa aa gagget gatt gettat gtaccatt get gttttet t ggeet et ggat gte act gtt gttte at agaa at ag gg t gaa ag te act gtt gtt et ag gaa ag te act gtt gtt et act gaa ag te act gaa agccett gaa accett teat tgttttetta aggett teet teet tgaa accett teat tgttttet tgaa aggett tetteet tgaa accett tgaa agaa aa aa tgtttet teet tgaa accett tgaa agaa aa aa tgaa agaa aa aa tgaa agaa agaa aa aa tgaa agaa agaa aa aa tgaa agaa aacctic titta attig cettag agta at attita actitat titta ata aatgaggga attetat ga aattat agaettig ggt gattat gt gt cagt at aggt cattitt titta at aa attat ga actite ga agtat aggt cattitt titta at aa attat ga actite ga agtat aggt cattitt titta at aa attat ga actite ga agtat aggt cattitt titta at aa attat ga actite ga aggt cattitt titta at aa attat ga actite ga actitggacttagagatgaaccaaagaaaacgatataaatacaaagtcattcttagactttaaggacetgcagcagtattcactgatattcatgccaagttaatgca

FIGURE 10C

catg taa actt tata at cag ttt g tcaa tatccaa aa at aactt g ctg g g at ttt tatta ag at t g cca g ct g g g c cag t g g ct cact ct g g taa t ctt ag cac g ctg g c cag t g g ct cact ct g g taa t ctt ag cac g ctg g c cag t g g ct cact ct g g taa t ctt ag cac g ctg g c cag t g g ct cact ct g g taa t ctt ag cac g ctg g c cac g ctg g c cac g ctg g c cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g g taa t ctt ag cac g ctg g ctcact ct g ctg g ctg g ctg g ctg g ctcact ct g ctg ggccagg catcatggtg catacctg taatcccaactactcggg aggctg aggcagtag aatggcttg aacccggg aggctg aggctg agccgg aggctg ag ${f a}$ aaatccaacaaaatatagatcacatttt ${f g}$ ttagctttatatctaagtattttcttttttggtgctaattatttaat ${f g}$ ttaaattcaaactttgattatttattgcttatgtat ttatttetteetteetaatatgtataeettttgttteetttettaetgeattagatagggetteeagtaeaatattgaataggageaatgagagggaatgttettget at cta aggt g tca a act t g t g g g t tcga at t g tt ta ta at at tta t ta ta ta acac t at at tt ta a act g cat a a cat tt ta acac t at at tt ta acac t at a tt ta acac t a ta acac t at a tt ta acac t a ta acacat cacta a a a tattgat a gta a tagtcact cat gg ctct a a gtg cttt a caa a tatta a ctc a ttt a a tctt ta a t gat ctt a cag a gta a catta ttc t cag ttt tacact a a tagt catta a tctt a cag a gta a catta ttc t cag ttt tacact a a tagt catta a tctt a cag a gta a catta ttc t cag ttt tacact a a tagt catta a tctt a cag a gta a catta ttc t cag ttt tacact a a tagt catta a tctt a cag a gta a catta ttc t cag ttt tacact a catta a tctt a cag a gta a catta ttc t cag ttt tacact a catta a tctt a cag a gta a catta ttc t cag ttt tacact a catta a catta ttc t cag ttt tacact a catta a catta ttc t cag ttt tacact a catta ttc t cag ttt tacact a catta ttc t cag ttt tacact a catta ttc t catta a catta ttc t cag ttt tacact a catta ttc t catta a catta ttc t catta ttc t catta ttc t catta tacact a catta ttc t catta ttctttttaag catg cataat gag ag tttctatctag ctg caatat gatatag cagaact ctgg cttccag taacaaag ag cttgggggaag gag gag gag gag ag comments and the state of the stateaggg caa gt taa aat gcca cag agct cacc gt tott gccaa aat to agcccttttt ctg gag caa ac act cott gg at t gt t gaa gg cot ct gg taat t to can be a gag and a gag cott of the country of thea agta a a agga cact gect to taata at ggat gecatt ggaca at act to teag ceage ct gg to at the act get at the act grant granttotac attttatttg cactacttg aag gatttatttattctcttaa cag GAGGTACACTCAGTGAAATTTGCAAACTCTCGAACAAGTTTAATAGTGTAATTCCTGTGAGATCTGGCCACGAAGACCTGGAACTTTTGGACCTTT at gag tgag a a cat g cag tgttt gg tttt ct gg tgtt ag ttt gc tgag aat gat gg ttt ccg gc ttt at ccat at gc ctg gc aa gg ac at gaac tcat cat gag tgag ac at gag ac atagtgctgcaataaacgtacatgtgcatgtgtctttatagcagaatgatttataatcctttgggtatatacccagtaatgggattgctggatcaaatggtatttctagttctagatccttgaggagttgccataccgtgttccacaaagattgaactaatttacactcccaccaacagtgtaaaagcattcctgtttctccacattgtct caage at ctgttgttteet tga cttttta at gategee at tetaagt ggegt gag at tgtatet eatt gtggtttt gat ttge at ttetaat gate ag tga eatt gatege at tga eatt gatege at the total transfer of the transfer of the total transfer of the total transfer of the total transfer of the transfer of thectctttagtttaattaggtcccatttgtcaattttggcttttattgccttttggtgtttttagacatgaagtctttgcccatgcctatgtcctgaatggtattgcccattgcctattgtccatttgtcctgaatggtattgcccattgcctattgtccatttgtcctttagtttagacatgaagtctttggccattgcccattgtcctgaatggtattgcccattgcctattgtcctgaatggtattgcccattgcctattgccctatcagg tttccttctagg atttttatgg ttttagg tcttacatttaag tctttaatccatcttgag ttgatttttgtataag gtgtaag ggg atccagtttcag ttttctgcag tttcagttttctgcag ttttcag ttttctgcag ttttcag ttttcag ttttcag ttttctgcag ttttcag tttttcag tttttcag ttttcag ttttcag ttttcag ttttcag ttttcag tttttcag ttttttag tttttag ttttttag ttttttag ttttttag ttttttag ttttttag ttttttag tttttag ttttttag tttttag ttttttag tttttag ttttttag tttttag ttttttag tttttag tttttta

FIGURE 10D

atatggetagecagtttteccaacatttattaaatagggaateettteeeeattgettgtttttgteaggtttgteaaagateagatggttgeagatgtgtggtg gtgttttcaactgagaaaacttttggaattaaaaactgttgaagagtaatttttattagtttatttcattggttactatatgttcagcatgaacttacagtgtatcaa cttatatgtactaggtttttctggcatatatctgttcttttgataagcatatatagtgaggatacacgcaatgtgtgaggcataaggctgtcttttgattcctcscaracteristicscaracteagccagaggctggtactcacttgttttctttaacagtgaggatttagattccagttacagagaaaaattcagagctgcaaacctagtaaaaattaagtgattc aatttcagaatttctgagccactaaattacaaatttgctgccactgaaaattggaatataaaagaattcattaggagctataaacagatttctacatttagaag gagggggtagggataaaatctcctctactgcttgatgaaacaatcaccctggacacattctgatttgagaaaaccttggattataacatatgttttatcatccta tteetetttettteegaettetaeatttgtageaattagtagteattgteataatgtgtaaateetgattgaaaaattatataetggttgaaaaatattataeggtaa ctgacttaaatctctgtgttatagctgtttttactgatatactcagtgtctaattctccctctcattagactcatgatctgagagtccatcttttttgaaaataaaatg atttttaattaageeaattaattaaaaattaaaacteataaaatteagtttttettgtataataagteaetgagetttetetttttgeatgeteateetgeteaettgangeteateetgageteateetgageteaettgagecttttgttctttccctttctctctattttgccttgccagtactgggcaccgtgacgcgtctaaaccaggaaaggaaatattcatattcattttaaactctgaaata geatgateteageteactgeacetetgeeteeceggtteaagegatteteetgteteaaceceeeggagtagetgggactacaggcatgeaceae taacacccggctgattgtttcgtattgttattagaaacgaggtttcaccatgttggccaggctggttttgacctcctgaccttaggtgatctgcccacctcgg gagacagtgteattctgatacccaggetgaagtggeatgatttcageteattgtageettgacatectgggetcaageaatectactactacteageeteeca ttatgggaagaaataccaaattgttcttcccatggttttaacaatatatggtcccatcagtaatgtataaaattttagtttctaccaagttcactccaacacttgggtgtttaagcagccccgtgtttatcagctacataggtttcctactctatgaattccatgttcacatcttttgcctgtttttctatgtggttactgatttctttgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgttggttactgatttcttatgteat gt gt ag eg cacata cat gt aat t gt at gt at gt at gt ag gt te ttte cg t gt tag ag at act aat ctt gt cag ttt cat cat act tt ct ag t gt at te cat ge ctt ttt te cat gt gt at te cat ge ctt ttt te cat gt gt at ge cat gt at gt at ge cat ga act ttat ggtt tctt gtgttt tat aggtt ttttta aaatttt tgtt tg tat at ggtt act ctc at ccctt tgctt tca agtt tct ggcatt cta at ttg tat gtc act ctc at ccctt tgctt tca agtt tct ggcatt cta at ttg tat gtc act ctc at ccctt tgctt tca agtt tct ggcatt cta at ttg tat gtc act ctc at ccctt tgctt tca agtt tct ggcatt cta at ttg tat gtc act ctc at ccctt tgctt tca agtt tct ggcatt cta at ttg tat gtc act ctc at ccctt tgctt tca agtt tct ggcatt cta at ttg tat gtc act ctc at ccctt tgctt tca agtt tct ggcatt cta at ttg tat gtc act ctc at ccctt tgct tct act ccctt tct act ccctt tgct tct act ccctt tct act ccctt tgct tct act ccctt act ccctt tct act ccctt tct act ccctt tct act ccctt tct act ccctact cata a at a a aget tat gg cta a attita gttt ta at agt gg ag ttt a a attitat gtt cta attitt ta gtt tat ag ttat gg ttat ag ttat tag tt tat ag ttat gg ttat gg ttat ag ttat gg ttat ag ttat gg ttat ag ttat gg ttatteccagtactttgggaggccaaggcaggcaggttgagctcaggagttgagaccagcctgggcattgtggcaagaccctgtctctataaaattacaggagttgagaccagcctgggcattgtggcaagaccctgtctctataaaattacaggagttgagaccagcctgggcattgtgggcaagaccctgtctctataaaattacaggagttgagaccagcctgggcattgtgggcaagaccctgtctctataaaattacaggagttgagaccagcctgggcattgtgggcaagaccctgtctctataaaattacaggagttgagaccagcctgggcattgtgggcaagaccctgtctctataaaattacaggagttgagaccagcctgggcattgtgggcaagaccctgtctctataaaaattacaggagttgagaccagcctgggcattgtgggcaagaccctgtctctataaaaattacagacctgggcattgtgggcaagaccctgggcattgtgagaccagcctgggcattgtgagaccagcctgggcattgtgagaccagcctgggcattgtgagaccagcctgggcattgtgagaccagcctgggcattgtgagaccagcctgggcattgtgagaccagcctggcattgtgagaccagcctgggcattgtgagaccagcctgggcattgtgagaccagcctgggcattgtgagaccagcctggcattgtgagaccagcctggcattgtgagaccagcctggcattgtgagaccagcctggcattgtgagaccagcctggcattgtgagaccagcctggcattgtgagaccagcagaccagcagaccagcagaccagcagaccagaaaatcacccaggcatggtggtgtgcaactgtggttctagctacttggaaggctgaggtggggggctcacttgagcccaggaggcagaggtgacagt to tiga a tottata ctig 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**gATGTAAACAGTGTTCTAGTTTGAGATCCATACAAAATCTAAATTCCCTGGTTGATAAAACA** cttatatttcagtatacctgaaagtatacctgttccttctttgtatacttattccttcttgtaagataaacagactttgtaaatttaaagatatctgccaagccttc cttt agtet gt att tette aage agge accepte a catacttte cectat geet tactattt tyttt te cteet cag taage attee agtet tette cag taage attee agtet tette cag taage attee agtet tette cag taage at the catactte contains a single contains

FIGURE 10E

ctg t cae at gaact tett gaact t g tette cattet ta at gta at titt tittet g te cae at gaact tett gaact t g g te ctette g tiet at tetta at gta at at tittet to g te cae at gaact tett gaact t g g te ctette g tiet to g te cae at g a cae t g a cae at g a caeto titig titt tatggt to ctgggag taggt getaag ticatctt to ttagt tittag tittaacct attgag acctttt gaag cotaaa att cagt to cook growth to the cook growth to the cook growth to the cook growth tagget tagget tagget to the cook growth tagget ttaaaacattetataaattgagtatetteeattteeaaacaagaagatatttatettaacetgtgaatttteattttaeceagtatgtetaatttettatttetteettatet taccaaattattaaateteagattetgacattettgteeatteaaccagatgatateeetttttettttttaaagttataaattatteeeetagettataaatagaaag gagagaggcatgctaaaacggtatttaactgcatgctatttttagaatattctgtattttaattttatctttcataaaactaacatgcaatgagttacatttcatga agctatttttttttggtatttttagtagagacagggtttcatcatgttggccaggctggtcttgaactcctcaagatccgcccaggtgatctgcccacctcagcc tcccaaagtgctgagaatacaggtgtgagggtgtcaacttattttaatacgttaatatttaatcaaaaagattaaattgcttatcataagatattctccctatgt agcaatcagcgcagaagacttatgtgaccaaatgcataggggttttcacccacaccaagcaggcaatccctcagcagacgccagctgggtgtcct ttta acttta acttgata at aaggaat ag cag act cat at g g ttt g at cttttttccttc act ag CACTGGGTATTGTACCCCTCCAATATGTGTTTGTTATGACCTTTACACTTGATGATGGAACAGGAGTACTAGAAGCCTATCTCATGG atta aggaa cagggatt ta aagagt cattee ctata ceatgge caa aatge aggata cgge ca cactat tggaag cattat tt gtagte ac atttat cgtagt can be a cattat to the contract of the contract cattat catggtttcaccatcttggccaggctggtcttgaactcctgacctcatgatccaccacccttggcctccaaagtgctgagattacaggcgtgagccaccgt tacaaaacettcetcatttetgacactaattgcaattggaagteetcaaggecactettagatttgataatteacaagacteetagaactcactgaaaactgtt at act ga cag tta cag at tat ta cag cta a agg at ga cat ta aa at cag at aat ga aa ag at ga cag ga cag at ga cag ga cagact tatagttg teeteteecea tagagttg tg gaetg ttaetttee tg caa cag tg tg tag cag tatacataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag gaa ag ctc tg ctaa a cataa tatat tg ccag at ag ctaa actaa tatat tg ccag at actaa actaa tatat tg ccag actaa actaa tatat tg ccag at actaa actaa tatat tg ccag actaa actaa tatat actaa actagattttagtgggactctatcacgtaggttggctgactgcccatatggctgatcatagtcttcagcccctcttgaggatcaagctgataccacatgctccaattt tete ceaceta caca atteattta acettte attaa atattta atgage acet get atgtaet aggtaet at tetet atgtgat gaga aca age gg t gaaca acca ge gg t gaaca acca gg t gaaca acca ge gg t gaaca acca gg t gaaca acctcaaagctattttaagattaaagagtaaataagattttggagttgagaccagcattctagtttatgaattctacaatcttgatagagggaaactgtctagattagattaagattaagagtgaaactgtctagattagattagagtgagaaactgtctagattagattagattagagtgagaaactgtctagattagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagagtgagaaactgtctagattagattagagtgagaaactgtctagattagattagagagaaactgtctagattagattagagagaaactgtctagattagattagaattagaattagagagaaactgtctagattagattagaattTTCCAGATTCCAGCATCAGAAGTTCTGATGGATGATGACCTTCAGAAAAGTGTGGATATGA TCATGGATATGTTTTGTCCTCCAGGAATAAAAATTGgtaggcaagaatattttaacaatcccacacttcttttacttgagattacttctttacttgagattacttctttacttgagattactttacttgagattacttctacttctacttgagattacttgagattacttctacttgagattacttctacttgagattacttctacttgagattacttctacttgagattacttctacttgagattacttctacttgagattacttctacttgagattcaga tette et cattite a a attigia et getta ta e et get ge ca et ga attite et tettigiga et at attigia et ta tigita a a et tigita et a tiggacaattitgattittetaacaattitttategtaggaaattttaecagetgeagatttageagetggtttaattittatataetattittaateaggetttaeteteet ggtcaatctttgcatcttataatagttacataatgataggaatttgtgttgatctctaaccaagtttaacttgaatacctttatttgttgtcagttttaatttgtgttaa

FIGURE 10F

agagt tatttattttgttttaat tggttaaat cgctttttttgtttttgtttttgtttttgtttttgtag ATGCATATCCGTGGTTGGAATGCTTCATCAAGTCATACAATGTCACAAATGGAACAGATAATCAAATTTGCTATCAGATTTTTGACACCACAGT TGCAGAAGATGTAATCTAA tattge cate ca atttage at a cata a a attget generate cate to cet getting a gette tittle et gacet gamma attget generate categories. The categories are the categories of thgttttgtatcagcaatgttgatgatgttagcatgggtatgggattagaaaatgtccttaccttaaatctcttggcttttactgggtgcaaggtaaataatggctagggtagaatgtgggatgggaaggtagaatggggtagaatggggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaaggtagggaatgggaatgggaatgggaatgggaatgggaatgggaatgggaatgggaatgggaatgggaaaggtaggaaatggaatgggaatggaaatggaatgggaatggaatggaatggaatggaatggaatgggaatggaagg caa agt tgctttgt tggggt gct gatact gat gat ttt aggat aaat tcatt tctt taaact tg taat acat ggt ttt at tgct tg ttt ctct cca ggat ag tagaal te taat gat tt gat tagaal tagtta caacta att gaat gat gat gat aa catta gaa aa tag ttt gat ttt tta caa gat gat tt gaa aa ta tag aa ta tta aa aa tag aa ta tta aa aa caa ttt aa caa aa catta ta tag aa ta tag aa ta tag aa tag aa ta tag aa tag aaat at at at at at a gatting that tit gecaa a gac a gat at a a at tacct ggt that at at tag tig a a gaa ta a at tag ting a gat at a gatting tit gat a gat at tag ting a gat attgccctaagttgagctgaaaaattgatatgaggcaaagaatcgaaataggtgtggcaatgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttaggcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagcagatgtttagggctgtctacatcccaggtactgtgcaattgcagatgtgcaattgcagatgtttagggctgtctacatcccaggtactgtgcaattgcagatgttaggcaattgcagatgttaggcaattgcagatgttaggcaattgcagatgttaggcaattgcagatgttaggcagatgttaggcaattgcagatgttaggcaattgcagatgttaggcagatgttaggcaattgcagatgttaggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggcagatggta ag cacta a acat g tatt t g at cete a cag caa cet at titt tee g at a ag a a act g ag g ett g at ta ag et g act t g act a ag tit cac a cag titt g ta a g ett g act gctttgacttaaacatctgaaataacattggaaatagattataagaggagtcagtgtttttctatagtttcaaaatacttttaacatcttattgtcaaaaagattggataactgactttctttgctcataataactctaaattctagttcctgagtacattaacacatcttctttacctaactaccaatgtcccccatcatcgacttatcagcacttatc

FIGURE 10G

Alternative forms of hPot1

partial genomic DNA lacking N-terminus

5	6	7 8	9	10	11	12	13+3'UTR
÷.	v			(00)	(04)	/4A63	(112+702)
(119)	(56)	(156) (205)	(135)	(88)	(51)	(100)	(I LETIUE)
	100/						

splice variant #1: 72kDa protein lacking exon 5

splice variant #3: 38kDa protein containing exon 5

splice variant #4: 58kDa protein lacking exons 5 and 10